

High-Precision Temperature and Humidity Sensor | OM-TH-DA803



OM-TH-DA803 high-precision sensor delivers exceptional accuracy of $\pm 0.3^{\circ}\text{C}$ for temperature and $\pm 3\%$ RH for humidity, making it ideal for data centers, server rooms, and micro-modules requiring reliable environmental monitoring. It features stable operation with overvoltage, overcurrent, and surge protection. Dual RJ45 ports simplify wiring through daisy-chain connections combining power and communication. Installation is flexible with magnetic or wall-mounting options. The integrated local display shows real-time readings, communication address, and baud rate for convenient on-site monitoring.

Key Features

High Accuracy	Temperature: $\pm 0.3^{\circ}\text{C}$ (-10°C to 60°C); Humidity: $\pm 3\%$ RH (20% ~ 80% RH)
Measurement Range	Temperature: -20°C to 80°C ; Humidity: 5% ~ 95% RH
Stable Operation	Overvoltage, overcurrent, and surge protection
Easy Installation	Magnetic or wall-mounting options
Simplified Wiring	2 x RJ45 ports with power and communication, supports daisy-chain connection

Specifications

Electrical Specifications

Operating Voltage	DC 9 ~ 27V
Operating Current	≤ 10 mA
Overcurrent Protection	Power/RS485: 200 mA
Overvoltage Protection	Power: 30V; RS485: 5V
Surge Protection	Power/RS485: 600W surge

Communication Interface

Interface Type	2 x RJ45 (power + communication)
Communication Protocol	RS485, Modbus RTU
Communication Address	1 ~ 63, configurable via DIP switch

Measurement Performance

Temperature Range	-20°C ~ 80°C
Temperature Accuracy	$\pm 0.3^{\circ}\text{C}$ typical @ 25°C
Humidity Range	5% ~ 95% RH
Humidity Accuracy	$\pm 3\%$ RH typical (20% ~ 80% RH @ 25°C)

Mechanical Specifications

Dimensions (W×H×D)	85 mm × 35 mm × 23.5 mm (± 0.5 mm)
Weight	< 50 g

Operating Environment

Operating Temperature	-20°C ~ 80°C
Operating Humidity	5% ~ 95% RH (non-condensing)